QP CODE: D2BIB2402	(Pages: 2)	Reg. No	:	.....
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SECOND SEMESTER FYUGP EXAMINATION, APRIL 2025

MAJOR COURSE

BIB2CJ102 : BUSINESS STATISTICS

(Credits: 4)

Time: 2 Hours **Maximum Marks: 70**

Section A

Answer the following questions. Each carries 3 marks (Ceiling: 24 marks)

1.	Define Mean deviation.	BL1	CO1
2.	What is meant by kurtosis? How do you measure kurtosis?	BL1	CO1
3.	Find Quartile deviation for the following data.23, 25, 20, 45, 85, 36, 24, 10, 19, 59, 18, and 65.	BL2	CO1
4.	Find the Bowley's coefficient of skewness from the following data. 28, 30, 35, 14, 34, 90, 21, 50, 34,15, 13 and 24.	BL2	CO1
5.	Define arithmetic mean. State any two merits and demerits of arithmetic mean	BL1	CO1
6.	Define chain index number	BL1	CO2
7.	What are seasonal variations of time series?	BL1	CO2
8.	Define regression analysis.	BL1	CO3
9.	Define classical definition of probability	BL1	CO4
10.	Define Union, intersection and complement of a set. Give example	BL1	CO4

Section B

Answer the following questions. Each carries 6 marks (Ceiling: 36 Marks)

11. Calculate mean for the data given below: BL2 CO1

Class	0 - 6	7 - 13	14 - 20	21 - 27	28 - 34	35 - 41
Frequency	8	17	28	15	9	3

12. Find the Standard deviation of the following frequency distribution. BL2 CO1

x	5	10	15	20	25
Frequency	8	15	28	40	5

(PTO)

13. Compute Pearson's coefficient of skewness from the following data. BL2 CO1

Class	0 – 10	10 – 20	20 – 30	30 – 40	40 – 50
f	3	5	9	21	2

14. Prices of a particular commodity in 5 years in 2 cities are given below. BL3 CO1

Price in city A	22	24	19	21	17
Price in city B	18	20	18	15	19

Find from the above data the city which has more stable price.

15. Explain any three problems in the construction of an index number. BL1 CO2

16. What is meant by trend? How would you fit a parabolic trend by the method of least squares? BL1 CO2

17. Calculate the coefficient of rank correlation from the following data : BL2 CO3

X : 35 15 30 22 12 5 28 18 41 4

Y: 39 25 22 28 12 17 18 19 34 16

18. An urn A contains 2 white and 4 black balls. Another urn B contains 5 white and 7 black balls. A ball is transferred from the urn A to urn B. Then a ball is drawn from urn B. Find the probability that it will be white. BL3 CO4

Section C

Answer any one question. Each carries 10 marks (1 x 10 = 10 Marks)

19. (a) Define mode. State the important merits and demerits of mode. BL3 CO1

(b) Compute median and mode for the following data:

Class	0 – 5	5 – 10	10 –15	15 –20	20 –25	25 –30	30 –35	35 - 40
Frequency	5	8	7	12	28	20	13	7

20. Establish correlation between the following pair of series . Also interpret the result: BL2 CO3

Series I : 17 19 20 22 24 27 29 30 33 35

Series II : 87 85 80 78 75 72 70 65 62 60

CO : Course Outcome

BL : Bloom's Taxonomy Levels (1 – Remember, 2 – Understand, 3 – Apply, 4 – Analyse, 5 – Evaluate, 6 – Create)